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EXAMINER

CHEN, TIANJIE

ART UNIT PAPER NUMBER

2656

DATE MAILED: 01/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/605,222

Applicant(s)

ARMAGOST ET AL.

Examiner

Tianjie Chen

Art Unit

2656

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 November 2005.
2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-73 is/are pending in the application.
4a) Of the above claim(s) 3-9, 12-18, 23-36 and 46-73 is/are withdrawn from consideration.
5) ☒ Claim(s) 37-44 is/are allowed.
6) ☒ Claim(s) 1, 2, 10, 11, 19-22 and 45 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Non-Final Rejection

Election/Restrictions

1. Applicant's election without traverse of claims 1, 2, 10, 11, 19-22, 37-40 and 45 in the reply filed on 11/03/2005 is acknowledged. Since independent claim 37 is allowed, dependent claims 41-44 are rejoined. Finally claims 1, 2, 10, 11, 19-22, 37-45 are under consideration.

Claim Objections

2. Claim 1 is objected to because of the following informalities:

- In claim 1, lines 3-4; "the data cartridge magazine" should be changed to --the magazine data storage element--.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 2, 19, and 45 are rejected under 35 U.S.C. 102(e) as being anticipated by Emberty et al (US 6,600,703).

Claim 1, Emberty et al shows a magazine data storage element 16 (Figs. 1 and 2) for use in a magazine-based data library 8 (Column 3, line 1) that is capable of transporting magazines within the library (Column 3, lines 13-16), the data storage

Art Unit: 2656

element including: a frame structure that defines a space for accommodating a plurality of hard disk drive 12 (Fig. 2) that each has a hard disk drive-interconnect connector 14 (Fig. 2; column 3, line 28); an interconnect structure including: a plurality of interconnect-hard disk drive connectors 20 (Column 3, lines 31-35) with each of the plurality of interconnect-hard disk drive connectors capable of connecting with a hard disk drive-interconnect connector; a magazine-drive connector 31 (Fig. 2; column 4, line 38) for connecting with a drive-magazine connector; and connection circuitry 24 (Fig. 2; column 3, lines 49-50) for connecting each of the plurality of interconnect-hard disk drive connectors with the magazine-drive connector 22 (Column 3, line 54); and a magazine transport means (Column 3, lines 12-16) for being engaged by a portion of a magazine transport device associated with a magazine-based library and used to displace a magazine towards or away from a shelf within the magazine-based library.

Claim 2, Emberty et al further shows wherein: the frame structure a first pair of parallel side surfaces; a second pair of parallel side surfaces that are perpendicular to the first pair of parallel side surfaces; a third pair of parallel side surfaces that are perpendicular to the first pair of parallel side surfaces and the second pair of parallel side surface; and a hole in (Fig. 2) one side surface of the first, second and third pairs of parallel side surfaces for exposing the magazine-drive connector 22 .

Claim 19, as described above, Emberty et al shows a magazine data storage element for use in a magazine-based data library that is capable of transporting magazines within the library, the data cartridge magazine including: a frame structure that defines a space for accommodating a plurality of hard disk drives; a plurality of hard disk drives that are located in the space defined by the frame structure and that

Art Unit: 2656

each has a hard disk drive-interconnect connector; an interconnect structure including: a plurality of interconnect-hard disk drive connectors with each of the plurality of interconnect-hard disk drive connectors capable of connecting with a hard disk drive-interconnect connector; a magazine-drive connector for connecting with a drive- magazine connector; and connection circuitry for connecting each of the plurality of interconnect-hard disk drive connectors with the magazine-drive connector; and a magazine transport means for being engaged by a portion of a magazine transport device associated with a magazine-based and used to displace a data cartridge magazine towards or away from a shelf within the magazine-based data cartridge library.

Claim 45. Emberty et al shows a magazine-based library for use with a magazine data storage element comprised of a frame structure, a plurality of hard disk drives supported by the frame structure, and an interconnect structure that extends between each of the hard disk drives and a magazine drive connector, the magazine-based a frame; library including: a shelf system (Fig. 1), operatively attached to the frame, capable of supporting at least two magazine data storage elements 10 (Column 3, line 25) and including at least one shelf; a magazine data storage element drive 12, operatively attached to the frame, and including a drive-magazine connector 22 for connecting with a magazine-drive connector of a magazine data storage element to establish a connection between a magazine data storage element and a host computer so that data can be transferred between the magazine data storage element and the host Computer, a magazine transport device (Column3, lines 10-16) for moving a magazine data element between the data storage element drive shelf and the magazine.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Emberty et al

Emberty et al shows hard disc drives 12, but does not specify the size. However, 2 1/2" hard disk drive is commonly used in the art. One of ordinary skill in the art would have been reasonably includes 2 1/2" hard disk drive as a option for the system.

5. Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Emberty et al in view of Mahmoud et al (US 6,880,033).

Claims 10 and 11, Emberty et al further shows that the interconnect structure configures the drives into RAID system (Column, 3, lines 64-67; which has a memory element in controller for store RAID code (Column, 4, lines 20-22), which is inherently a solid device, but does not show it is a solid state memory element and is EEPROM.

Mahmoud et al shows a RAID control system including a solid memory EEPROM memory (Column 6, lines 30-31) and teaches that EEPROM can be used to intelligently manage devices (Column 6, lines 31-34). One of ordinary skill in the art would have been motivated to apply solid state memory EEPROM to intelligently control the system.

6. Claims 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Emberty et al in view of Shimada et al (US 6,845,422).

Art Unit: 2656

Claims 20 and 21, Emerty et al shows that each of the plurality of hard disk drives is a SCSI drive (Column 4, lines 62-67); but does not specify it being serial.

Shimada et al shows that a serial SCSI can provide high communication rate for communication movie-image (Column 7, lines 7-12). One of ordinary skill in the art would have been motivated to used set the SCSI as a serial SCSI for obtaining higher communication rate.

Allowable Subject Matter

7. Claims 37-44 are allowed.

The following is an examiner's statement of reasons for allowance:

- With regard to independent claim 37, as the closest reference on record, Emberty et al (US 6,600,703) shows a magazine data storage element drive 8 for use with a magazine data storage element 10 comprised of a frame structure, a plurality of hard disk drives 12 supported by the frame structure, and an interconnect structure that extends between each of the hard disk drives and a magazine-drive connector 22, the drive including: a frame for supporting a magazine data storage element 16; **but fails to show** a magazine data storage element cable operatively attached to the frame, including a drive-magazine connector for connecting with a magazine-drive connector of a magazine data storage element, a drive-device connector, and conductors extending between the drive-magazine connector and the drive-device connector.

Art Unit: 2656

- Applicant asserts that by using this configuration the magazine data storage element drive is capable of being directly connected to a host computer ([0337]).

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

8. The prior art made of record and not relied in PTO-892 Form upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tianjie Chen whose telephone number is 571-272-7570. The examiner can normally be reached on 8:00-4:30, Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Nguyen can be reached on 571-272-7579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2656

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


TIANJIE CHEN
PRIMARY EXAMINER